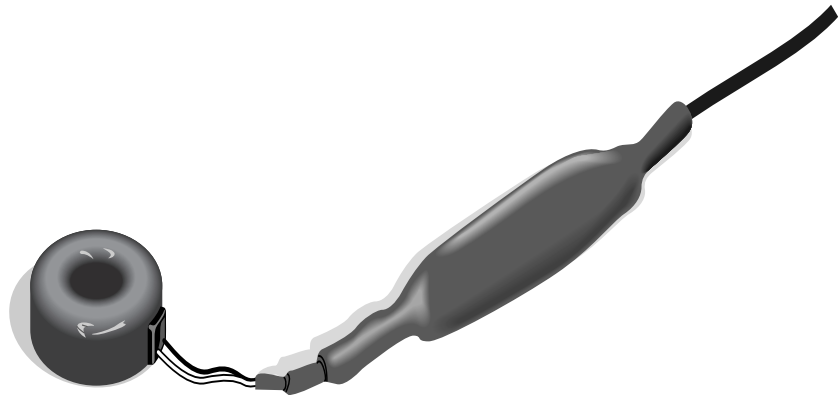


INSTRUCTION MANUAL



CS15-L Current Transformer

Revision: 10/08



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Figure

- 1. CS15-L Current Transformer 1

CS15-L Current Transformer

1. General Description

The CS15-L uses a modified CR Magnetic's CR8459 Current Transformer to measure the approximate current over a range of 0 to 125 A. The CS15-L outputs a millivolt signal allowing it to be directly connected to the CR2XX dataloggers. The CS15-L is recommended for measurements that do not require high accuracy.

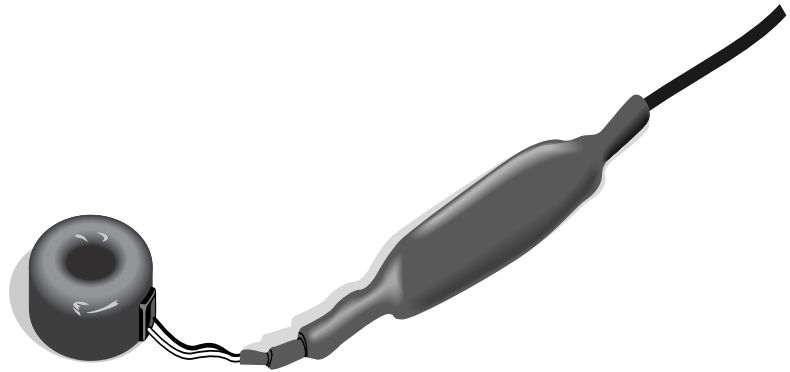


FIGURE 1. CS15-L Current Transformer

2. Specifications

Example Applications:

- Motor or generator load conditions
- Efficiency studies
- Intermittent fault detection
- Rough submetering

Manufacturer's Specifications

Frequency:	50 and 60 Hz
Insulation Resistance:	100 M ohm @ 500 VDC
High Potential:	2000 volts
Rated Current:	125 A
Storage Temperature:	-25°C to 70°C
Operating Temperature:	-25°C to 55°C
Case Material:	Polypropylene Resin
Construction:	Epoxy Encapsulated
Accuracy with 10 ohm burden max. (resistive):	typically ± 5 percent of actual value with provided multiplier
Dimensions:	Outer diameter: 1.89" (4.8 cm) Inner diameter: 0.75" (1.9 cm) Depth: 0.67" (1.7 cm)

3. Installation

Mount the AC load wire through the hole of the CS15-L.

4. Wiring

The CS15-L uses a single-ended analog channel.

Red ----- Ex
 White----- Single-Ended Channel
 Black ----- AG
 Clear----- AG

5. Measurement Instruction

In the CR2XX datalogger the VoltSE instruction is used.

NOTE SCWIN users: This manual was written primarily for those whose needs are not met by SCWin. Your procedure is much simpler: just add the CS15-L (it's in the Miscellaneous Sensors folder), save your program, and follow the wiring shown in Step 2 of SCWin.

NOTE The example measurement instructions that follow do not store data to final storage. Additional instructions (DataTable and CallTable for the CR2XX) are required to store data permanently.

5.1 Sample Program

This sample program measures a single CS15-L Current Transformer directly connected to the SE 1 channel of the CR2xx.

The multiplier in this program example is 0.2 and is representative of one application. The multiplier can be changed to match calibrated measurements. You should use a multiplier that you have validated for your purposes.

EXAMPLE 1

```
'CR200 Series
'Program Name CS15-L.CR2
'
'Wiring:
'SE1 White
'Gnd Black
'EX1 Red
'Gnd Clear
'
'Declare Public Variables
```

```

Public Crnt_A
Public N
Dim Offset
Dim SumSqr
Dim mV
Dim I

Units Crnt_A = Amps

'Main Program
BeginProg
  N = 48
  Scan (1,Sec)
    'CS15 Current Transformer measurement CS15_L:
    ExciteV (Ex1,mV2500)
    Offset=0
    SumSqr=Offset
    For I=1 to N
      VoltSe (mV,1,1,1.0,0)
      SumSqr=SumSqr+mV^2
      Offset=Offset+mV
    Next
    ExciteV (Ex1,0)
    Crnt_A=SQR ((SumSqr - (Offset^2/N))/N) *0.2
    If Crnt_A<0.2 then Crnt_A=0
    'Call Output Tables to store data
  NextScan
EndProg

```


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